

**ENVIRONMENTAL PROTECTION AGENCY (EPA)
Clean Diesel Funding Assistance Program FY 2018
Request for Proposals (RFP)
EPA-OAR-OTAQ-17-08**

Project Title: Diesel Emission Reduction Project – Beaver and Stevens Village, Alaska

Applicant Information:

- Applicant (Organization) Name: Tanana Chiefs Conference

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Eligible Entity: Tanana Chiefs Conference is eligible to apply under this RFP as an intertribal consortium which is authorized by our tribes to support the environmental health and well being of all of our communities. This is stated in our Vision Statement “HEALTHY, Strong, Unified Tribes” and as part of our mission “To provide a unified voice in advancing sovereign tribal governments through the promotion of physical and mental wellness....” As part of our goal to achieve this Tanana Chiefs Conference operates the Office of Environmental Health for our member tribes which has concern over “all aspects of the natural and built environment that may affect human health,” this includes air quality in the region. According to the 2010 Census, the population of the community of Beaver is 84 people with 99% being Alaskan Native and the population of Stevens Village is 78 people, which is 91% Alaskan Native both villages have passed resolutions authorizing TCC as their inter-tribal consortium with jurisdiction over clean air to apply for DERA funding on their behalf.

Total Project Cost:

EPA Funds Requested:	\$600,912
Mandatory Match from Tanana Chiefs Conference and VW Trust:	<u>\$161,002</u>
<i>Total Project Cost:</i>	<i>\$761,914</i>
Mandatory Match as a percentage of EPA award:	21%

Target fleet: *Other* - The applicant proposes a certified generator repower of 3 stationary, non-road diesel generators used for energy production in the power plant in Beaver, Alaska and 4 stationary, non-road diesel generators used for energy production in the power plant in Stevens Village, Alaska.

Technology: *Engine Replacement:* The applicant proposes a certified generator repower (the removal of existing generators and replacing them with newer, cleaner generators that is certified to a more stringent set of generators emissions standards), as specified in Section III.B.f.2.a of the RFP.

Short Project Description: The applicant proposes to replace seven stationary diesel generators located in the power plants in Stevens Village and Beaver, Alaska, with certified Tier 2 and Tier 3 marine generators. These generators will also increase the heat pulled off the engines and reduce fuel oil burned for heat in public buildings in both communities.

Section 1. Project Summary and Overall Approach

A. VEHICLES AND TECHNOLOGIES

Tanana Chiefs Conference, seeks to collaborate on a certified engine repower project that will replace existing Tier 0,1 or 2 diesel generator(s), with newer and more efficient models as outlined in Table 1:

Table 1. Table showing the location and type of proposed engine replacement

Village	Gen-Set #	kW Rating	Tier Rating	Engine #	Engine Year	Proposed Replacement Engine Model Year and Tier
Stevens	1	100kW	Tier 1	6068TF250	2003	JD 4045AFM85 – MY2013 - Tier 3
Stevens	2	63 kW	Tier 0	4045TFM50	2003	JD 4045TFM75 – MY2009, Tier 2
Stevens	3	63 kW	Tier 0	4045TFM50	2003	JD 4045TFM75 – MY2009, Tier 2
Stevens	4	37 kW	Tier 1	3029TF150	2003	JD 3029TF270 – MY2009, Tier 2
Beaver	1	100kW	Tier 1	6068TF150-C	2006	JD 4045AFM85 –MY 2013, Tier 3
Beaver	2	67	Tier 2	4045TFM75A	2006	JD 4045AFM85 – MY 2013, Tier
Beaver	3	67	Tier 2	4045TFM75A	2006	JD 4045AFM85 – MY 2013 Tier 3

The use of Tier 2 and 3 marine generator is necessary because of their proven reliability in the harsh environment in rural Alaska. Tier 3 marine generators are equipped with electronically controlled governors and high-pressure common rail fuel systems, and are turbocharged and after-cooled, which improves performance and reduces emissions. Use of Tier 4 industrial generators in prime power applications in remote areas of Alaska is *not viable due to lack of diesel exhaust fluid (urea) and ULSD fuel*. Diesel Exhaust Fluid has a freezing point of 15 deg F and requires additional heating in cold temperatures and is considered hazmat, making it challenging freight for communities that are fly-in-only for most of the year. Reliability is the first priority in selecting a generator, as they serve as the means to provide for the health and welfare of residents in the communities of both Beaver and Stevens.

Currently, generators in Beaver and Stevens recover heat that is then used by the water plant, tribal office and clinic in both communities. The installation of the marine generators proposed will increase that available heat and further reduce diesel consumption and emissions in the communities.

As owners and operators of the utility, the **Beaver Village Council and Stevens Village Council are the current owners and will assume ownership of the new equipment purchased and installed under this funding proposal** and will operate and maintain the generators. Both Stevens Village and Beaver Village are considered “standalone” electric grids that use diesel generators to produce 100% of the electric power needs in both communities. There are no maintained roads to Beaver or Stevens or between Beaver and Stevens, thus fuel delivery is accomplished only by airplane to both communities.

Restrictions for Mandated Measures:

Use of Tier 3 marine generators to repower non-certified industrial and marine diesel generators does not conflict with DERA requirements, as use of marine generators in a stationary source application are not subject to the Restriction for Mandated Measures of the RFP and are exempt from the requirements of EPAs locomotive and marine rule.

Rural communities in Alaska are not connected to the main state-wide electrical grid that runs between Fairbank and Anchorage and is referred to as the “railbelt electric grid” therefore, each community must generate their own electricity. Small diesel power plants are used for this purpose and many of the power plants in these communities rely on old technology, high emitting, non-certified diesel generators. The

generators must be absolutely reliable to provide consistent power to the residents to ensure health and welfare. The current cost of electricity in Beaver according to a recently completed rate analysis is \$0.90/kWh the current cost of electricity for Stevens village is \$1.07/kWh. The installation of newer, cleaner, appropriately sized generators will decrease fuel consumption, reduce emissions, and hopefully also lower the cost of power. Installing new, more efficient generators will both reduce the emissions per quantity of fuel combusted, as well as be more efficient, further reducing emissions, as well as saving money. In most rural communities, diesel is well over \$5.57 per gallon and can be significantly higher when world oil prices jump. Occasionally, a community may experience a fuel shortage if fuel transport is delayed such as long periods of extreme cold temperature. Again, increased fuel efficiency can make supplies last longer, reducing the chance of shortages.

Funding Restrictions:

No DERA funding awarded will be used for; costs of emissions reductions that are mandated under federal law, matching funds for other federal grants, expenses incurred prior to the project period, emissions testing and/or air monitoring activities, or fueling infrastructure. The non-certified diesel generators proposed for replacement do not have less than 3 years useful life and do not operate less than 500-hours per year.

2. ROLES AND RESPONSIBILITIES:

Once the certified engine repower project is funded, the procurement of replacement generators will be performed by Tanana Chiefs Conference, with the assistance of project partners Beaver and Stevens as well as the Alaska Energy Authority (AEA). Tanana Chiefs Conference will hire contractors to administer the installation of the generators, with additional technical support from partners as needed. [REDACTED]

[REDACTED] Tanana Chiefs Conference will manage the grant and work with the EPA to ensure all grant requirements are met. Tanana Chiefs Conference will post an RFP for a contractor and select the contractor in accordance with applicable procurement rules. Tanana Chiefs Conference will work with the contractor to oversee the installation and commissioning of the equipment and, at the conclusion of the project, TCC energy staff and contractor will inspect the final installation with representatives from each community.

3. TIMELINE AND MILESTONES

The applicant proposes to begin work on the project on May 1, 2020; in accordance with the start date listed in Section II.D of the RFP, and will occur over a two-year project timeframe (May 1, 2018-April 30, 2020). The timeframe will allow for ample data collection on diesel consumption, comparison with previous years' fuel usage, and preliminary calculation of emissions reductions. Installation of the diesel generators will occur in the summer or fall of 2018 with final reporting beginning summer 2019 and reports completed by that winter with an additional few months allowed to resolve any unforeseen issues before the project closeout.

Task #	Task Description	Completion Date
Task 1	Complete Grant negotiations with EPA and sign cooperative agreement	5/1/2018
Task 2	Complete site visit to communities to inspect plants	5/15/2018
Task 3	Bid Documents, procurement put out to bid	6/1/2018
Task 4	Selection of Contractor and signature of final bid documents	8/1/2018
Task 5	Shipment of Generators to communities	11/1/2018
Task 6	Substantial Completion of work in Stevens/Beaver, 2 nd inspection trip	3/31/2019
Task 7	Preliminary Data collection, possible modifications, pay final invoices	9/1/2019
Task 8	Complete all reporting and verify fuel reduction through PCE records	3/31/2020

Section 2. Project Location

A. PROJECT LOCATION:

Beaver is located on the north bank of the Yukon River approximately 60 air miles and 80 river miles Southwest of Fort Yukon and 110 miles north of Fairbanks. It lies in the Yukon Flats National Wildlife refuge. The community is just south of the Arctic Circle and was founded in the early 1900s after gold discoveries in the Chandalar region. Beaver was established as the Yukon River terminus for miners heading north to the Chandalar gold fields. In 1974. The population of Beaver is predominately mixed Gwitchin/Koyukuk Athabascan and subsistence hunting is an important source of food.

Stevens Village is also located on the north bank of the Yukon River approximately 26 miles upstream from the Yukon River Bridge on the Dalton Highway and roughly 80 river miles southwest of the village of Beaver. The community was founded in 1902 by 3 brothers and a trading post was established in the early 1900s.

Both Beaver and Stevens have a continental arctic climate, characterized by seasonal temperature extremes. Winters are long and harsh, and summers warm and short. The average high temperatures, during July, ranges from 65 to 72 °F. The average low temperature during January is well below zero. Extended periods of -50 to -60 °F are common. Extreme temperatures, ranging from a low of -71 to a high of 97 °F, have been measured. Annual precipitation averages 6.5 inches, and annual snowfall averages 43.4 inches. The Yukon River is ice-free from late-May to mid-October. Both Beaver and Stevens have had their original power plants replaced by steel plants by the Alaska Energy Authority in the early 2000's and both plants also supply waste heat to the nearby water plant, clinic and tribal offices.

B. AREAS OF POOR AIR QUALITY:

The State of Alaska is not in the DERA programs priorities areas, however they do meet other programmatic priorities. The communities of Beaver and Stevens have had to put tribal concerns for air quality aside for several years, due to tight operating budgets that leave little room for raising extra capital to replace existing generators. Each community already has electric rates that are approximately 800% higher than the national average. In an effort to reduce consumption and thereby emissions, we have developed partnerships and information sharing relationships with AEA, IRHA and Doyon. These partnerships have provided us with resources and expertise to advance our goal of reducing emission. Once the certified engine repower is completed, efforts in both Beaver and Stevens can be redirected toward energy efficiency projects that further reduce consumption and emissions.

C. AREAS THAT RECEIVE A DISPROPORTIONATE QUANTITY OF AIR POLLUTION FROM DIESEL FLEETS:

The diesel generators in the power plant run around the clock, thus any improvements in efficiency will have a net positive effect on emissions, fuel consumption and fuel cost. In 2016, diesel engines in the Beaver powerhouse burned through 29,743 gallons of diesel fuel to produce 264,892 kWh/gal at an average fuel efficiency of 9.58 kWh/gal and an average fuel cost of \$3.83/gal for a total fuel cost of \$113,846. The Stevens Village powerplant in 2016 burned through 19,763 gallons of diesel to generate 131,734 kWh of electricity. The cost of fuel in 2016 was \$3.78/gal and annually this cost the tribe \$74,607. The fuel efficiency seen at the powerplant was approximately 8.52 kWh/gal.

Alaska is unique in its diesel use. Power in rural villages is typically generated from diesel in small systems, thus using a disproportionately large quantity of LSD diesel. Although the air quality in rural Alaska is typically quite good, the **both the Beaver and Stevens Village powerplants are located almost exactly in the middle of town and within 500 feet of their associated school, water plant, tribal office and health clinic.** In all directions from the powerhouse, within a 4000 ft. radius, are community fish traps, firewood yards, and hunting grounds. Heavy thermal inversions, seasonal wind directions and

topography cause emissions to settle in the village during winter months creating exceptionally poor air quality during the winter. In summer months, diesel emission, combined with dust from vehicle traffic on dirt roads, provide challenges to the elderly and others community members with respiratory health issues. Noise pollution is troublesome to students in the school and is a year round concern.

The Tanana Chiefs Conference believes carrying out the certified engine repower implementation plan will result in significant emissions reductions. Moreover the repower will allow Beaver and Stevens Villages to effectively use their meager funds to implement energy efficiency projects to further reduce emissions and ensure safe, reliable and clean power for residents in the community.

Section 3. Benefits to the Community

If awarded, this grant will allow Tanana Chiefs Conference to assist both Stevens Village and Beaver Village in taking significant action towards meeting goals of reducing community exposure to hazardous air pollutants, and will assist in reducing greenhouse gas emissions, without impacting the economic vitality of the state or either community.

Needs and concerns of community:

Research shows there is no safe level of exposure to diesel particulate matter. Similar to other rural Alaska communities, power generation in both Beaver and Stevens Village depend on diesel generators. These generators operate close to homes, workplaces, and the school. The proximity between generation and the community poses a large health risk. Replacing existing generators will reduce emissions, improve efficiency, and reduce that health risk.

Population affected:

Beaver is a community of 84, with 99% being Alaska Native, and has 36 occupied housing units. Stevens Village has a population of 78 people and 26 occupied housing units. Both villages have a community hall, clinic water plant, tank farm, airstrip and other infrastructure. Due to the work and residential location of residents being so close to one another, little relief from emissions is possible. Several residents suffer from respiratory ailments, due to a range of causes (genetic disposition, age, lack of health care and poor nutrition). Cultural norms and values of subsistence and living off the lands place our residents in the outdoors year round to both harvest and process food. Degraded infrastructure places increased stress on existing generators. An accumulation of factors place the living, working and recreation areas of residents in closer proximity to power plant emissions than those who live in larger centers.

Socio-economic data indicates the project will benefit community residents in terms of economic savings. According to the U.S. Census Bureau, the median household income in Beaver is \$24,000 (placing them below the poverty line) and is 2/3 less than the State of Alaska median household income of \$73,355. The median household income for Stevens Village is \$15,938, which places it at less than 25% of the Alaska median household income level. The cost per kilowatt-hour of electricity is \$1.07/kWh in Stevens and \$.90/kwh in Beaver indicating that energy costs consume a high percentage of household income in both communities.

Section 4. Community Engagement & Partnerships

This proposal is the product of a community-based, multi-stakeholder collaborative process on energy planning and environmental benefits from energy efficiency. Tanana Chiefs Conference partners frequently with its villages including Stevens and Beaver as well as regional corporation, Doyon Incorporated, Alaska Energy Authority (AEA), and Alaskan Natives Tribal Health Consortium (ANTHC) on plans to reduce emissions and increase energy efficiency. More specifically these partnerships have

assisted us in providing technical assistance; grant writing, strategic energy planning and feasibility. *TCC was requested to assist each community with this project through tribal council resolution and direction*

Section 5. Project Sustainability

As detailed in Section 6, the certified engine repower program results in significant emission reductions. Although Beaver and Stevens do not have formal air quality plans, commitments towards addressing air quality issues do exist and Tanana Chiefs Conference has an Office of Environmental Health (OEH) which focuses on both outdoor and indoor air quality in our communities to reduce the high rates of asthma, heart disease and other ailments throughout the region. The proximity of power plants pose a health risk on their own, however, the cumulative effects of emissions on the local environment, both human and animal, is of great concern to our community. This is due to the almost complete reliance year round upon wild country foods. The replacement of these generators with those that meet more stringent emission requirements will aid in improving air quality, and reduce the cumulative impacts emissions are having on our community and wildlife.

Improved efficiency in the powerplant fits in with the energy plan of both communities because in addition to decreasing the emissions from diesel engines, the marine jacketed generators will increase available recovered heat and reduce community space heating fuel consumption and associated emissions. Both communities have already undergone extensive LED lighting and home and public building weatherization projects to substantially reduce the consumption of diesel in each community. We also anticipate that cost savings will affect community moral, and will be used to implement further energy consumption reduction strategies for the community.

Section 6. Environmental Results—Outputs, Outcomes and Performance Measures

A. OUTPUTS AND OUTCOMES:

The output of this project is the certified engine repower of seven diesel generators in the communities of Beaver and Stevens Village. The outcome of the project will improve air quality, and thereby the health and wellness, of the community members in both Stevens Village and Beaver, Alaska; a goal of the EPA's 2014-2018 Strategic Plan (Objective 1.2).

In addition to the certified engine repower, this project will also be used as a learning opportunity for other interior Alaska Tribes; via dissemination of the project design, implementation, and the improved performance data. List serves, websites and outreach events, in the form of emails and fact sheets will provide communications, along with the final reporting requirements set out in Section VI.C of the RFP. Communications will serve as a regional record to be accessed as needed by the public. Tanana Chiefs Conference as the entity completing many of this outreach work across our villages and has been assisting a number of communities in the interior with certified engine report projects.

Outcomes will be illustrated by comparing historic data already being collected as a part of the Alaska Power Cost Equalization Program, which includes annual diesel fuel consumption and power generation, with the date collected after the certified engine repower. We anticipate the outcomes to be similar, if not better, than those indicated by the EPA Diesel Emissions Quantifier (as listed in the tables below) and will indicate the tons of pollution reduced over the lifetime of the new engines.

Quantifying health benefits (improvements to human health, the environmental, local economy, social conditions and over all community wellness) from the installation of new generators will not be quantifiable during the funding period. However, qualitatively it can be said that with the powerhouse located near the community hub in both villages (see enclosed map) any reductions in emissions will have a net positive benefit on public health and air quality, and may be seen in outcomes such as; increased community engagement and awareness of air quality projects, as well as buy in for future energy consumption reduction projects.

Anticipated Outputs and Outcomes		
Activities	Outputs	Outcomes
Generators repower of seven diesel generator sets in two powerplants	Annual fuel consumption reduction = 5728 in Stevens, 5397 in Beaver	Annual NOx emissions reduction = 31.8 % reduction in Stevens, 35.6% reduction in Beaver

B. PERFORMANCE MEASURES:

Oversight of Project:

[REDACTED]

Project Management:

- Fiscal Tracking and Reporting: Progress, expenditures, purchases and other expenses allowable in the grant will be tracked and reported on by the TCC fund accountant assigned to this project and overseen by TCC Controller Debbie Meade.
- Milestone Tracking and Reporting: Reports will be generated quarterly for Chief and Council and for EPA according to requirements set out in the award, and will show progress on achieving proposed timeline and project outcomes (see timeline in Section 1).
- Emissions tracking: The State of Alaska Power Cost Equalization Program requires all rural utilities to track diesel fuel consumption and power generation data. This data on fuel use will be used to track emissions of the new generators, and will be compared to the DEQ data below that projects the results expected with the generator replacements.

Expected outcomes from the project include:

Short-term outcomes –

- Genset replacements will lead to immediate reductions in diesel fuel use and decreased emissions.
- Community wellness will improve with reduced cost of living.
- Community interest in energy projects will be fueled.

Medium-term outcomes –

- Project success will begin circulating to other Alaska Native Villages, and will result in other villages engaging in feasibility studies.
- Community interest will begin on further energy reduction projects, and the tribal council will respond with proposing new projects to pursue.

Long-term outcomes –

- Alaska has the highest fuel costs in the country and, despite the recent fall in fuel prices, fuel costs will undoubtedly rise again. While new and innovative sources of renewable energy are being developed, the need for diesel fuel continues because of its ability to provide steady and reliable power. Replacing aging generators with cleaner and more efficient ones now will provide emission reductions and fuel savings for many years to come.
- The villages of Beaver and Stevens will engage in additional energy efficiency projects.
- Health benefits for residents in the communities will continue to surface for successive generations.

Results from EPA Diesel Emission Quantifier for Beaver and Stevens Village:

Table 2. DEQ Results for Beaver (below) and Stevens (right)

Emission Results¹

Here are the combined results for all groups and upgrades entered for your project.¹

Annual Results (short tons) ¹	NO _x	PM2.5	HC	CO	CO ₂	Fuel ²
Baseline for Upgraded Engines	3.482	0.088	0.134	0.582	329.0	28,346
Amount Reduced After Upgrades	0.580	0.032	0.045	0.066	72.5	6,454
Percent Reduced After Upgrades	16.9%	35.8%	33.9%	10.2%	22.1%	22.7%
Lifetime Results (short tons) ¹						
Baseline for Upgraded Engines	22,783	0.578	0.809	3.845	2,298.3	198,296
Amount Reduced After Upgrades	3,785	0.207	0.303	0.338	482.9	42,822
Percent Reduced After Upgrades	16.9%	35.8%	34.8%	8.8%	21.0%	21.6%
Lifetime Cost Effectiveness (\$/short ton reduced)						
Capital Cost Effectiveness ⁴ (unit & labor costs only)	\$37,058	\$1,514,032	\$3,096,987	\$96,148	\$649	
Total Cost Effectiveness ⁴ (includes all project costs)	\$50,360	\$1,631,288	\$3,130,097	\$114,441	\$708	

Emission Results¹

Here are the combined results for all groups and upgrades entered for your project.²

Annual Results (short tons) ¹	NO _x	PM2.5	HC	CO	CO ₂	Fuel ²
Baseline for Upgraded Engines	5.836	0.138	0.157	0.996	222.3	19,760
Amount Reduced After Upgrades	2.419	0.057	0.035	0.466	64.5	5,736
Percent Reduced After Upgrades	41.5%	41.5%	22.5%	46.8%	29.0%	29.0%
Lifetime Results (short tons) ¹						
Baseline for Upgraded Engines	35,018	0.829	0.939	5.977	1,333.8	118,560
Amount Reduced After Upgrades	14,538	0.344	0.211	2,785	387.2	34,616
Percent Reduced After Upgrades	41.5%	41.5%	22.5%	46.8%	29.0%	29.0%
Lifetime Cost Effectiveness (\$/short ton reduced)						
Capital Cost Effectiveness ⁴ (unit & labor costs only)	\$25,343	\$1,065,089	\$1,741,707	\$131,586	\$850	
Total Cost Effectiveness ⁴ (includes all project costs)	\$0	\$0	\$0	\$0	\$0	

Section 7. Programmatic Capability and Past Performance

Tanana Chiefs Conference is the inter-tribal consortium for Alaskan Tribe's across Alaska's vast interior region. The non-profit was setup in 1962 to assist communities with land claims issues. Today Tanana Chiefs Conference is a [REDACTED] non-profit that manages the health needs of our region's tribes. Approximately [REDACTED] is spent on self-governance and tribal assistance and spread across a number of programs that include Energy, tribal realty, forestry, acrchaeology, transportation, tribal courts VPSO and many more. Tanana Chiefs Conference has a long history of providing successful project management for our communities and the TCC energy program this year along managed 4 generator plant rebuilds for our 37 communities, 2 of these projects (Hughes and Chalkyitsik) involved EPA DERA funds. Both our project management and financial book-keeping have sufficient expertise to make this project a success.

A. PAST PERFORMANCE:

Currently the Tanana Chiefs Conference energy department is overseeing [REDACTED] in funded projects from a variety of state, federal and private sources [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] addition to a variety of other energy efficiency, renewable energy and powerhouse work.

Title	Assistance Agreement #	Funding Agency and CFDA #
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]

B. REPORTING REQUIRMENTS:

Tanana Chiefs Conference has a solid reputation of completing our projets on time and under budget. All of our projects taken on over the past 6 years have been completed on time and on budget and are still actively in use or functioning to their desired purpose. Our reporting requirements are met on time and turned into the appropriate responsible parties and we make a notable attempt to set our goals using the

SMART systems. Our goals are - **S**pecific **M**easureble **A**ttainable **R**elevant **T**ime-bound this helps keep our projects on track, within the scope and under-budget.

C. ORGANIZATIONAL EXPERIENCE:

Tanana Chiefs Conference Energy Department has an outstanding track record of completing projects on time and under budget. Dave Messier, the project lead holds his PMP (Professional Project Management) certificate as well as a CEM (Certified Energy Manager) certificate and has a Masters of Business Administration. For projects of this nature we utilize project software such as Microsoft Project, which helps us manage our day to day tasks and keeps us on time and under budget. Using this model, TCC recently assisted Chalklyitsik Village Council with their Tribal DERA project and at present the work is set to be closed out nearly 6 months early.

D. STAFF AND RESOURCES:

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] Tanana Chiefs Conference

staff is 100% confident of our ability to effectively manage these funds [REDACTED]

Section 8. Budget Narrative and Detail

A. EXPENDITURE OF AWARDED GRANT FUNDS:

TCC staff and specifically the Rural Energy Department has assisted with 7 diesel generator replacement projects over the past 5 years utilizing, 3 of those with EPA DERA funds. TCC Accounting has specific procurement policies in place that are followed and multiple bids are generated for each contract. Budget estimates are based off quotes received from contractors familiar with the powerplants to ensure sufficient funds are available. TCC staff complete regular reporting on projects to the EPA and internal accountants who oversee funding to ensure budgets are spent on time.

B. BUDGET NARRATIVE:

Personnel costs are based on current TCC Project Management Rates for both hourly and fringe costs. Further detail on the basis of these numbers is available on request. [REDACTED]

Based on past project experience this project will take 350 hours over 2 years.

Travel costs [REDACTED]
[REDACTED]
[REDACTED] The total for this category is \$1,724.

Equipment is the Engines for Beaver that are listed in the attached fleet description have been quoted at \$193,700 for Beaver of this TCC is requesting \$125,352 from the EPA and has requested \$68,348 from the VW Environmental Mitigation Trust Settlement Funds funds through an application submitted by Jan 2nd 2018, that listed TCC as the tribe's lead agency and committed all funding toward the FY 2018 DERA application. For Stevens Village generators the total quoted cost of their 4 engines was \$207,000. Of this amount \$131,022 is being requested from the EPA and an additional \$75,978 was been requested from the VW Environmental mitigation Trust Settlement funds through an application submitted January 2nd 2018 that listed TCC as the tribe's lead agency and committed all funding toward the FY 2018 DERA application.

Supplies - TCC is requesting an estimated \$4,500 in misc. supplies to support the project. This will be used for any replacement oils and lubricants, fittings, pumps needed to complete work in the Beaver and Stevens Village Powerplants. It is based on experience from past projects.

Contractual cost includes all shipping of materials and labor needed to install all 7 generator sets in the powerhouses in both Beaver and Stevens Village. [REDACTED]
[REDACTED]
[REDACTED] TCC is requesting all of those costs from the EPA DERA program.

Other Stevens and Beaver village both charge a normal rate of \$150/nt for lodging in their community. Both communities have agreed to support the project with the donation of 40 nights worth of lodging per community (20 nights/village x 2 contracts) the total contributed by each village for this lodging expense is \$6,000.

Indirect: [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

C. BUDGET TABLE:

Note: The itemized budget below reflects the applicant's 21% cost share and is based on quotes received from Current River Electric (CRE) one of the potential vendors for the project who has worked in both the Stevens Village and Beaver Powerplants and is familiar with the work that needs to be completed. TCC project manager Dave Messier has worked on a number of DERA projects and is well aware of the time commitment, procurement policies and DERA regulations required to effectively complete these projects.

Budget Table

	EPA Funding	Cost-Share
Personal		
[REDACTED]	\$ 14,244	\$2,374
TOTAL PERSONAL	\$ 14,244	\$ 2,374
Fringe Benefits		
Benefits, insurance, retirement, medicare, SS, worker comp, personal leave corresponds to [REDACTED]	\$ 6,804	\$ 1,134
TOTAL FRINGE BENEFITS	\$ 6,804	\$ 1,134

Travel		
2 trips to Beaver, 2 trips to Stevens Village	\$ 1,724	
TOTAL TRAVEL	\$ 1,724	\$ -
Equipment		
3 JD 4045AFM85 Tier 3 99kW Gensets for Beaver	\$ 125,352	\$ 68,348
Stevens village Tier 2 and 3 generator sets	\$ 131,022	\$ 75,978
TOTAL EQUIPMENT	\$ 256,374	\$ 144,326
Supplies		
Misc Parts for Bvr and Stevens Powerhouse	\$ 4,500	
TOTAL SUPPLIES	\$ 4,500	\$ -
Contractual		
Contractual for Beaver	\$ 143,800	
Contractual Costs for Stevens Village	\$ 137,500	
TOTAL CONTRACTUAL	\$ 281,300	\$ -
Other		
Lodging Stevens and Beaver [REDACTED]		\$ 12,000
TOTAL OTHER	\$ -	\$ 12,000
Indirect Charges		
[REDACTED]	\$ 26,884	
[REDACTED]	\$ 9,081.70	\$ 1,168
TOTAL INDIRECT	\$ 35,965	\$ 1,168
TOTAL FUNDING	\$600,912	\$161,002
TOTAL PROJECT COST	\$	761,914

Section 9. Applicant Fleet Description

Detailed information regarding the engine fleet in both Stevens Village and Beaver is available on the associated Applicant Fleet Description worksheet that is attached to this application.

Attachments:

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- 5. Resolution and Letter of Support – Beaver
- 6. Resolution and Letter of Support – Stevens
- 7. Maps (2) of Project Location
- 8. Quotes from Current River Electric for Stevens and Beaver
- 9. Photographs of existing power generation facilities in Beaver (Stevens Plant is very similar)
- 10. Applicant Fleet Description Spreadsheet
- [REDACTED]
- 12. BAT Analysis for Tier 2 engines in Stevens Village